Chapter Four

METHOD

Subjects

Measures

Rochester Adaptive Behaviour Inventory (RABI):
Preschool Form (Revised)

Socio-Economic Status Scale (SESS)

Design

Procedure
SUBJECTS

One thousand and two hundred preschool children equally and randomly selected from tribal, rural, and urban areas of Chhattisgarh, a part of south M.P., were used as subjects. The subjects from each area were equally selected from the two different agegroups i.e., 30-36, and 48-54 months. Half of the subjects from each sub-group were male and remaining were females. Urban subjects were taken from Raipur city whereas rural subjects were taken from different villages of Raipur district. Tribal subjects were taken from tribal villages of Bastar district. Special care was taken that while selecting urban subjects, rural and tribal population temporarily shifted to cities* were not included. Similarly, while selecting rural subjects, tribal population residing in the villages was not taken. Table 1 presents the details of the sample used in the present study.

Table 1

Details of the sample used in the present study. Figures in each cell indicate the number of subjects used.

<table>
<thead>
<tr>
<th>LOCALE</th>
<th>Male AGE</th>
<th>SEX</th>
<th>Female AGE</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td></td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Tribal</td>
<td>100</td>
<td></td>
<td>100</td>
<td>400</td>
</tr>
<tr>
<td>Rural</td>
<td>100</td>
<td></td>
<td>100</td>
<td>400</td>
</tr>
<tr>
<td>Urban</td>
<td>100</td>
<td></td>
<td>100</td>
<td>400</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>1200</td>
</tr>
</tbody>
</table>

*Only those families were considered as urban who were living in cities for last 20 years.
MEASURES

1. Rochester Adaptive Behaviour Inventory (RABI):
   Preschool Form (Revised).

   Social competence of the children was measured by Hindi adaptation (by the researcher) of Rochester Adaptive Behaviour Inventory (RABI): Preschool Form (Revised) developed by Jones (1981, a copy enclosed in Appendix A-I). The revised RABI was originally developed for assessing social competence of children of $2\frac{1}{2}$ and 4 years of age. In a pilot study by the researcher, the Hindi adapted form was found suitable for the measurement of social competence of preschool children ($2\frac{1}{2}$ - 5 years) in Indian situation.

   The RABI (Revised) Preschool Form gathers information about the children's adaptive behaviour by the means of parental interview. The RABI employs a fundamentally different format than that typically used in behavioural surveys. The format is that of a clinical interview of the parents based upon many specific, behaviourally oriented questions. Each question is accompanied by the scale specific to that time, each point of which is operationally defined. Questions are scored by the interviewer after careful probing of each question. A standard set of interviewing procedure is used to obtain sufficient information to produce a clear and unequivocal scoring of the items. The process of "cross examining" is also employed while interviewing, it eliminates most of the sources of errors. This keeps RABI free from many of the biases typically attributed to parental reports of ongoing child behaviour.
The Inventory contains 71 questions. Each question is followed by 2-5 alternative answers. Score of 1 is given when the behaviour of the child corresponds to the first answer. Similarly, scores of 2, 3, 4 or 5 are given when the behaviour of the child corresponds to the 2nd, 3rd, 4th or 5th answers respectively. Answers of some questions (9, 10, 13, 45, 46, 54, 68, 69, 70, 71) are arranged in reverse order. In these cases reversed scoring was done. The minimum score which a child may get is 71 whereas maximum is 267.

The RABI attempts to measure social competence on 12 dimensions. These dimensions are: cooperation with family, cooperation with others, friendship patterns, timidity in social settings, fearfulness/nervousness, activity level, bizarre/symptomatic, whiny behaviour, demandful of mother's attention, depression, imaginary play and persistence. In the present study total social competence score (summation of the scores obtained in various dimensions) has been taken into consideration.

The Hindi adapted inventory possesses fairly high reliability. The test-retest reliability was determined by correlating the scores of a sample of 60 children of Raipur city on two occasions at an interval of 20 days. Different interviewer was used on the retest to protect against inflation of reliability due to a single interviewer's memory of previous scoring. The obtained coefficient of correlation was very
The split-half reliability correlated with SB prophecy formula was also found to be very high (.82). Concurrent validity of the inventory has been established by calculating its scores (N=60) to the scores of Social Maturity Scale developed by Srivastava (1983). The obtained coefficient was .49 which is significant at very high level.

2. Socioeconomic Status Scale (SESS)

The socioeconomic status (SES) of the parents was ascertained by administering a modified version of Socioeconomic Status Scale (Form A & B) developed by Kulshreshtha (1980, 1987). Form A of the SESS was used for the urban sample whereas Form B was used for rural and tribal samples. Both the Forms (A & B) of SESS were modified by the researcher so as to make them suitable for the present research purpose. For example, in the original scale, informations are collected from the subjects themselves but, since the subjects of the present study were too young to respond to the items of the scale, the responses were collected from their parents. Some other minor modifications were also made. Modified copies of Form A & B are enclosed in Appendix (A-2, A-3). Responses were collected through interview and/or observation.

The urban and rural forms (A & B) both contain 20 items. The scale collects informations regarding the 5 component variables, i.e., (i) parental occupation, (ii) parental education,
(iii) economic indicator, (iv) cultural indicator, and (v) psychological indicator. Both the forms have been found to possess high reliability and validity (see Kulshreshtha, 1980, 1987).

3. Educational level of the family was determined by the information obtained from the respondent in response to items related to educational component of SESS (Form A & B). Form A includes 8 categories of education starting from illiterate to doctoral or post doctoral degree. Scores from 0 to 8 are assigned to these categories. Similarly, Form B also includes 8 categories of education from illiterate to post graduate degree, scores from 0 to 7 are assigned to these categories.

DESIGN

The present study is a research employing type-S independent variables. The study investigated the role of locale, socioeconomic status, education, age, and sex in the development of social competence of preschool children. For this purpose, three studies using factorial design were conducted. The study I examined the locale difference in social competence. Study II was conducted to investigate the difference in social competence arising due to difference in the degree of socioeconomic status, and the study III explored the role of education. In each study the subjects were taken from two different agegroups (i.e., 30-36 months, & 48-54 months) and
from both the sexes. This provided a good case to study the role of age and sex in determining the degree of social competence.

In fact, one study could have been designed in order to investigate the role of locale, SES, and education in social competence using a 3x2x2 factorial design with 3 levels of locale (tribal, rural, and urban), two levels of SES (high & low) and two levels of education (high & low). But since the criteria of classification of high and low levels on SES and education dimensions for tribal, rural, and urban subjects were different*, they could not be considered in a 3x2x2 factorial design as mentioned above. Therefore the data were analysed separately for the tribal, rural, and urban samples in order to examine the role of SES, and education in social competence.

Study I examined the role of locale in determining the social competence of children. For this purpose a total of

* One criterion of classification of high and low levels on education and SES dimensions for tribal, rural, and urban subjects was not justified as urban subjects have definitely higher levels of SES and education than rural and tribal subjects; and rural subjects are certainly in a better position than tribal subjects. If we take one uniform criterion for determining high and low level of SES for tribal, rural, and urban subjects, most of the tribal and rural subjects would be placed in the low level of SES. Similar difficulty would arise while classifying the tribal, rural, and urban subjects on high and low levels of education. This would create difficulty in getting urban samples with high SES and low education, and low SES with high education. It would also be difficult to get tribal sample with high SES and low education, and high education with low SES. These types of difficulties led the investigator to study the role of SES, and education separately for tribal, rural, and urban samples and separate criteria for determining high and low SES and education were developed for the tribal, rural and urban subjects.
1200 children was used as subjects (for details, see Table 1). A 3x2x2 ANOVA was used to analyse the data in which 3 locales (tribal, rural & urban), 2 agegroups (high: 48-54 months, low: 30-36 months) and 2 sexes (male & female) were taken as independent variables. Social competence scores of the subjects were considered as the dependent variable.

In study II the role of SES on social competence of the tribal, rural, and urban subjects was investigated. The data were analysed by employing three 2x2x2 ANOVAs in which 2 SES (high & low), 2 age (high & low), and 2 sex (male & female) were taken as independent variables. The social competence scores of the subjects comprised the dependent variable. The first ANOVA examined the role of SES in social competence of urban subjects whereas second and the third examined the role of SES in social competence of rural and tribal subject respectively.

As mentioned earlier the SES was taken on two levels (i.e., high & low). For the purpose of dividing urban subjects into high and low SES subgroups, out of 400 urban subjects, 150 scoring high from the top, and 150 scoring low from the bottom (excluding the subjects falling within the semi-interquartile range) on SES were considered as the subjects of high and low SES subgroup respectively. Since the subjects were already taken from two different agegroups and sexes, a 2 SES (high & low) x 2 age (high & low) x 2 sex (male & female) design was
obtained. Since the number of subjects falling in each cell was not equal, systematic rejection technique (i.e., random-rejection) was used to eliminate additional observation and to keep number of subjects in each cell equal* (i.e., \( n=30 \)).

Rural and urban subjects were also divided into high and low SES subgroups following the above procedure and here also \( 2(\text{SES}) \times 2(\text{Age}) \times 2(\text{Sex}) \) design was obtained. The number of subjects in each cell was equated \( (n=30) \) through systematic rejection. Two \( 2 \times 2 \times 2 \) ANOVAs, one for rural and one for urban subjects were computed in order to examine the difference in social competence of rural, and urban subjects arising due to difference in SES, age, and sex.

Study III was designed to investigate the role of education in deciding the social competence of the tribal, rural, and urban subjects. The tribal, rural, and urban subjects were divided into high and low education subgroups and \( n \) in each cell was equated \( (n=30) \) following the procedure shown in Study II. Since subjects were taken from two different agegroups and sexes, it provided a case for analysis through \( 2 \times 2 \times 2 \) ANOVA. Therefore, three \( 2 \times 2 \times 2 \) ANOVAs, one each for the tribal, rural, and urban subjects were computed.

* Although ANOVA can also be used when sample size varies within various cells, \( n \) in each cell was equated because ANOVA procedure is most accurate when used to examine experimental data with equal sample size (Gravetter & Wallnau, 1987, p.420). D'Amato (1983) also mentions that although equal number of Ss in each subgroups are not essential for factorial design, such a distribution is most commonly encountered because it greatly facilitates appropriate statistical analysis (p.59). Ferguson (1985) has also advised to avoid unequal \( n \)'s whenever possible (p.291).
and urban samples, were computed in which education (high & low), age (high & low) and sex (male & female) were considered as the independent variables and social competence as the dependent variable.

PROCEDURE

First of all, for data collection larger number of subjects were identified. For selection of the urban subjects the investigator procured the names and the addresses of children of 30-36 and 48-54 months mostly from Raipur Corporation-records and different pre-primary schools. Out of those children 400 were selected randomly in such a fashion that they represented equal number of male and female subjects in both the agegroups as shown in Table 1.

For selecting 400 rural subjects, a larger number of children in the agegroups of 30-36, and 48-54 months from various villages of Raipur district were identified. Out of these children 400 were selected as per the requirements of the present study detailed in Table 1. Similarly from a larger sample of tribal children of 30-36, and 48-54 months of age, 400 were selected randomly (from various tribal villages of Bastar district of M.P.) as per the necessity of the study shown in Table 1. For getting the names and addresses of the children, Kotwals and Police Stations of the respective villages were contacted. In this way, a total of 1200 children was selected as subjects of the present study.
For the administration of RABI and SESS, the parents of each child were contacted individually by the researcher. After establishing proper rapport the responses for the items of RABI and SESS were collected.

Since most of the items of RABI refer to the social development of children in the family situation, undoubtedly, mother is the best source from whom the required information may be elicited. Therefore, mothers were interviewed by the researcher in their homes and informations so collected were recorded. In case of a motherless child, father or other member of the family intimately related to him was contacted.

While collecting the informations on RABI, questions on the RABI were not merely read to mothers, rather they were used as a springboard to conversation between mother and interviewer. In fact, many of the questions were not asked in the given form. The task of the interviewer was to gain as much information as possible in order to score each RABI item. For this purpose mothers were encouraged to talk freely about the contents of each item. For each item, if the report obtained was not clear, the investigator probed for information necessary to score the item. These probes were inclusive of tactics such as rephrasing the questions, asking for quantitative estimates of the frequency or duration of behaviour or giving standard example of behaviour. To supplement the mother's observation, whenever possible, researcher herself
observed the children. If children were school-going (in some cases only in urban area) teachers too, were contacted if and when felt necessary, in order to get relevant informations.

Responses for the items of SESS were mostly collected from fathers. In case of non-availability of father, responses were obtained from mother or other member intimately related to the family. Responses were collected through interview technique but observations and probing were also used to get an accurate estimate of SES.

In the tribal area help of local interpreter was sought. Responses of the respondents in the form of raw scores are given in Appendix B.